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Cryptophagidae (Coleoptera) from the Himalayas, with Descriptions of New Species, Keys and Remarks to some Languriidae*)

By Georgy Lyubarsky, Moscow

With 23 figures

Summary

Species of the Coleoptera family Cryptophagidae (*Cryptophagus pedarius* **sp. n.**, *Cryptophagus honoratus* **sp. n.**, *Himascelis nepalensis* **sp. n.**, *Himascelis gracilis* **sp. n.**, *Himascelis turgidus* **sp. n.**, *Atomaria accola* **sp. n.**, and *Atomaria mentita* **sp. n.**) are described from Nepal. The males of *Cryptophagus malaisei* Bruce 1945, *Cryptophagus anxiosus* Grouvelle 1916, *Loberus sinuaticollis* Bruce 1945, *Atomaria torrida* Johnson 1970 and the female of *Atomaria plecta* Lyubarsky 1996 are described and illustrated for the first time. Several species of Cryptophagidae as well as 2 species of Languriidae are recorded for the first time from Nepal. Identification keys for the species of the genera *Cryptophagus, Himascelis* and *Atomaria* from the Himalayan Region are provided.

Zusammenfassung

Arten der Käferfamilie Cryptophagidae (*Cryptophagus pedarius* **sp. n.**, *Cryptophagus honoratus* **sp. n.**, *Himascelis nepalensis* **sp. n.**, *Himascelis gracilis* **sp. n.**, *Himascelis turgidus* **sp. n.**, *Atomaria accola* **sp. n.** und *Atomaria mentita* **sp. n.**) werden aus Nepal beschrieben. Die Männchen von *Cryptophagus malaisei* Bruce 1945, *Cryptophagus anxiosus* Grouvelle 1916, *Loberus sinuaticollis* Bruce 1945, *Atomaria torrida* Johnson 1970 und das Weibchen von *Atomaria plecta* Lyubarsky 1996 werden erstmalig beschrieben und abgebildet. Zahlreiche Arten der Cryptophagidae ebenso wie 2 Arten der Languriidae werden erstmalig aus Nepal gemeldet. Bestimmungsschlüssel für die Arten der Gattungen *Cryptophagus, Himascelis* und *Atomaria* aus dem Himalaya werden beigefügt.

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Contents

1. Introduction 2
2. Taxonomic part 2
2.1. Family Cryptophagidae 2
2.1.1. *Antherophagus* Dejean 1821 2
2.1.2. *Cryptophagus* Herbst 1792 3
2.1.3. Key to the species of *Cryptophagus* from the Indian subcontinent 9
2.1.4. *Henoticus* Thomson 1868 12
2.1.5. *Micrambe* Thomson 1863 12
2.1.6. *Himascelis* Sen Gupta 1978 12
2.1.7. Key to the Indian and Chinese species of *Himascelis* 16
2.1.8. *Caenoscelis* Thomson 1863 17
2.1.9. *Atomaria* Stephens 1830 17
2.1.10. Key to *Atomaria* species from Nepal, based on Johnson (1970) and the above new findings 23
2.1.11. *Curelius* Casey 1900 25
2.1.12. *Ephistemus* Stephens 1829 25
2.2. Family Languriidae 25
2.2.1. *Cryptophilus* Reitter 1874 25
2.2.2. *Loberus* Leconte 1861 26
3. Acknowledgments 26
4. References 26

1. Introduction

Both Central Asia and the Indian subcontinent represent one of the globe's centres of generic and specific diversification of the Cryptophagidae. Numerous new species have lately been described from there (Johnson 1970, Lyubarsky 1997), mainly in the genera *Cryptophagus* Herbst 1792, *Micrambe* Thomson 1863, *Henoticus* Thomson 1868 and *Atomaria* Stephens 1830. Also a new genus from Nepal has been described recently (Lyubarsky 1998). In spite of this, the fauna of this region is surely insufficiently known yet, though its general resemblance to that of central and southern China can be suggested (Lyubarsky 1996).

The present contribution is chiefly based on abundant material collected during joint expeditions by Jochen Martens (Zoological Institute, University Mainz) & Wolfgang Schawaller (Staatliches Museum für Naturkunde Stuttgart, *SMNS*) mostly in Nepal but also in the Indian Kashmir. The bulk of the specimens have been collected in different montane and subalpine forest types by sifting litter and rotten wood and by using the extracting methods "Berlese" and "Winkler". The treated 36 Himalayan species of Cryptophagidae cover the altitudinal belt 1000–4000 m, the 2 species of Languriidae originate from the belt 950–1330 m. The material including all holotypes is deposited in the SMNS, with only a few samples retained for the collection of the Zoological Museum of Moscow University *(ZMUM)*, Russia, as indicated below.

2. Taxonomic part

2.1. Family Cryptophagidae

2.1.1. *Antherophagus* Dejean 1821

The Indian fauna of *Antherophagus* contains 2 species: *himalaicus* Champion 1922 and *nigricollis* Champion 1922 (Lyubarsky 1991).

Antherophagus himalaicus Champion 1922

Material: Nepal, Myagdi Distr., Myagdi Khola S Dobang, 2000–2400 m, 21. V. 1995 leg. MARTENS & SCHAWALLER (1 ex. SMNS); – India, Ladakh, Kargil, 2950 m, 30. V.–7. VI. 1976 leg. MARTENS & SCHAWALLER (4 ex. SMNS, 3 ex. ZMUM); – Lahul, Keylong, 4000 m, 25. VII. 1989 leg. RIEDEL (1 ex. SMNS).

Distribution: India (Uttar Pradesh, Himachal Pradesh, Kumaon, Almora). Some new Indian records of *Antherophagus himalaicus* are presented elsewhere (LYUBARSKY 1997). This is the first formal record of this species in Nepal.

Antherophagus sp.

Material: India, Lahul, Keylong, 3500–4000 m, 25. VII. 1989 leg. RIEDEL (1 ♀ SMNS).

Remarks: This female is similar to *Antherophagus himalaicus* but it is smaller: 3.4 mm (body length of *himalaicus* 4–5 mm), darker: dark red-brown (light yellow-brown in *himalaicus*), the pronotum weakly narrowed basally. Perhaps this specimen represents a still undescribed species.

2.1.2. *Cryptophagus* Herbst 1792

The fauna of the Indian subcontinent contains 12 species of *Cryptophagus: anxiosus* Grouvelle 1916, *atratus* Champion 1922, *auropubens* Grouvelle 1916, *bengalensis* Sen Gupta 1980, *clavator* Champion 1924, *heteroclitus* LYUBARSKY 1997, *himalaicus* Bruce 1952, *johnsoni* Sen Gupta 1980, *lomus* Sen Gupta 1980, *martensi* Sen Gupta 1980, *parallelicollis* Grouvelle 1916, and *simulator* Grouvelle 1916. All these species are distributed almost exclusively within the Indian subcontinent. In addition, *Cryptophagus aurovestitus* Bruce 1945, and *affinis* Sturm 1845 (= *laticollis* Lucas 1849, RESKA 1994) have been recorded in India (LYUBARSKY 1997).

Cryptophagus anxiosus Grouvelle 1916 (Fig. 1)

Material: Nepal, Panchthar Distr., Paniporua, 2300 m, mixed broadleaved forest, 16.–20. IV. 1988 leg. MARTENS & SCHAWALLER (1 ♀ SMNS, 1 ♀ ZMUM); – Lalitpur Distr., Phulchoki Mt., 1800–2000 m, 25. IV. 1995 leg. MARTENS & SCHAWALLER (1 ♀ SMNS); – Taplejung Distr., Yamputhin, cultivated land, open forest, 1650–1800 m, 26. IV.–1. V. 1988 leg. MARTENS & SCHAWALLER (1 ♀ SMNS); – Ilam Distr., Mai Pokhari, 2100–2200 m, *Castanopsis* forest remains, 9.–10. IV. 1988 leg. MARTENS & SCHAWALLER (1 ex. ZMUM); – Dailekh Distr., N Dailekh, 1600 m, 1.–2. VI. 1998 leg. SCHAWALLER (10 ex. SMNS); – Dailekh Distr., Dailekh to Mabuchin Pass, 2300 m, 3.–4. VI. 1998 leg. SCHAWALLER (1 ex. SMNS); – Surkhet Distr., 1600–2000 m, 28. V. 1998 leg. SCHAWALLER (3 ex. SMNS).

Remarks: *Cryptophagus anxiosus* is similar to *heteroclitus*, but differs in being monochromous and possessing a particular structure of the aedeagus. The aedeagus of *heteroclitus* is a little longer, and the parameres are much longer than in *anxiosus*. *Cryptophagus anxiosus* is also similar to *callosipennis* Grouvelle 1919, but differs by the shape of the callosity which is with an acute tooth on top in *callosipennis;* in addition, *callosipennis* is usually either with a clear black band on the elytra or with nearly completely black elytra, while *anxiosus* is usually monochromous, red-brown, and only some specimens are with a very poorly-expressed, diffused, dark spot on each side of the elytron. *Cryptophagus zonatus* Lyubarsky 1996, which is known from China, is likewise bichromous, but it is larger in size, flatter, and the

callosity is acuminate at the tip (with an obtuse tooth in *anxiosus*). Aedeagus as in Fig. 1.

Distribution: Nepal, N India (Darjeeling).

Cryptophagus auropubens Grouvelle 1916

Material: Nepal, Ilam Distr., Mai Pokhari, 2100–2200 m, *Castanopsis* forest remains, 9.–10. IV. 1988 leg. Martens & Schawaller (1 ♀ SMNS).

Distribution: India, Nepal. This is the first formal record of this species in Nepal.

Cryptophagus aurovestitus Bruce 1945

Material: Nepal, Myagdi Distr., Myagdi Khola N Dobang, 2800–3100 m, 22.–24. V. 1995, leg. Martens & Schawaller (1 ♀ SMNS).

Distribution: Nepal, India, Burma. This is the first formal record of this species in Nepal.

Cryptophagus atratus Champion 1922

Material: Nepal, Panchthar Distr., Paniporua, 2300 m, mixed broadleaved forest, 16.–20. IV. 1988, leg. Martens & Schawaller (1 ♂ SMNS).

Distribution: Nepal, India. This is the first formal record of this species in Nepal.

Cryptophagus heteroclitus Lyubarsky 1997

Material: Nepal, Mustang Distr., right bank of Lethe Khola near Lethe, 2400 m, 5.–7. V. 1995 leg. Martens & Schawaller (1 ex. SMNS); – S Lethe, 2450–2600 m, 30. IV.–1. V. 1980 leg. Martens & Ausobsky (1 ex. SMNS); – Kaski Distr., above Pothana, 2000 m, 27.–29. IV. 1995 leg. Martens & Schawaller (2 ex. SMNS, 3 ex. ZMUM); – Kaski Distr., above Dhumpus, 2100 m, *Sarauja* forest, 8.–10. V. 1980 leg. Martens & Ausobsky (1 ♀ SMNS); – Gorkha Distr., Chuling Khola, *Quercus semecarpifolia* forest, 2800 m, 2.–3. VIII. 1983 leg. Martens & Schawaller (1 ♀ SMNS); – Panchthar Distr., Paniporua, mixed broadleaved forest, 2300 m, 16.–20. IV. 1988 leg. Martens & Schawaller (2 ex. SMNS, 1 ex. ZMUM); – Panchthar Distr., Dhorpar Kharka, mature *Rhododendron-Lithocarpus* forest, 2700 m, 13.–16. IV. 1988 leg. Martens & Schawaller (1 ♀ SMNS); – Lalitpur Distr., Phulchoki Mt., 1800–2000 m, 25. IV. 1995 leg. Martens & Schawaller (1 ex. SMNS); – Sankhua Sabha Distr., Arun Valley, Chichila, 1900–2000 m, *Quercus* forest, bushes near village, 18.–20. VI. 1988 leg. Martens & Schawaller (1 ♀ SMNS); – Taplejung Distr., Yamputhin, cultivated land, open forest, 1800 m, 26. IV.–1. V. 1988 leg. Martens & Schawaller (1 ex. SMNS); – Taplejung Distr., SE Yamputhin to Yamputhin, 1650–2000 m, forest mainly *Alnus*, 26.–30. IV. 1988 leg. Martens & Schawaller (1 ♀ SMNS); – Taplejung Distr., Hellok in Tamur Valley, 2000 m, forest remains, bushes, 17. V. 1988 leg. Martens & Schawaller (1 ♂ SMNS); – Taplejung Distr., Omje Kharka NW Yamputhin, mature mixed braodleaved forest, 2300–2500 m, 1.–6. V. 1988 leg. Martens & Schawaller (1 ♀ SMNS); – Ilam Distr., Mai Pokhari, 2100–2200 m, *Castanopsis* forest remains, 9.–10. IV. 1988 leg. Martens & Schawaller (4 ex. SMNS, 1 ex. ZMUM); – Ilam Distr., Gitang Khola Valley, *Alnus* forest along river, 1750 m, 11.–13. IV. 1988 leg. Martens & Schawaller (3 ex. SMNS, 1 ex. ZMUM); – Solukhumbu Distr., below Pangum, 2500 m, 14.–15. V. 1997 leg. Schawaller (1 ex SMNS); – Solukhumbu Distr., Goyom above Sete, 3100 m, 10. V. 1997 leg. Schawaller (1 ex. SMNS); – Dailekh Distr., Dailekh to Mabuchin Pass, 2300 m, 2.–4. VI. 1998 leg. Schawaller (5 ex. SMNS); – Dailekh Distr., N Dailekh, 1600 m, 1.–2. VI. 1998 leg. Schawaller (1 ex. SMNS); – Surkhet Distr., N Surkhet, 1600–2000 m, 28. V. 1998 leg. Schawaller (2 ex. SMNS).

Distribution: India, Nepal. This is the first formal record of this species in Nepal.

Remarks: In addition to bichromous specimens with a black band on the elytra, there are completely monochromous individuals which are more or less light brown, without infuscated elytra. Eyes conical, prominent to varying degrees, but always small and rather coarsely facetted. Pubescence varying from quite decumbent to sparse and a little outstanding. Parameres very long, almost 1.5 times as long as apical part of aedeagus, right paramere with 2–3 long setae, left one with 2–4 setae.

Cryptophagus himalaicus Bruce 1952

Material: Nepal, Dolakha Distr., SW Kalinchok Mt., 3100 m, 19.–23. IV. 1995 leg. Martens & Schawaller (3 ex. SMNS, 2 ex. ZMUM); – Mustang Distr., Purano Marpha, 3200 m, 9.–11. V. 1995 leg. Martens & Schawaller (1 ex. SMNS).

Distribution: India, Nepal.

Cryptophagus honoratus **sp. n.** (Figs 2–3)

Holotype (♂): Nepal, Manang Distr. Marsyandi, 2200 m, above Bagarchap, *Acer-Quercus* forest, 12–13. IV. 1980 leg. Martens & Ausobsky (SMNS).

Paratype: Nepal, Ilam Distr., Mai Pokhari, Gitang Khola Valley, 2500–2600 m, 28.–31. III. 1980 leg. Martens & Ausobsky (1 ♀ ZMUM).

Description: Body broadly elongate (Fig. 2), convex; head, prothorax and elytra reddish-brown, elytra slightly darker apically, with almost inclined pubescence. Head transverse, normal in size, with prominent, hemispherical, somewhat finely facetted eyes, strongly and densely punctured. Antennae long, somewhat slender, club well-marked, with half-club reaching beyond base of prothorax, segments 1–3 elongated, with 3rd equal in length to 2nd; 5th slightly elongated, somewhat longer than 4th; 6th to 8th almost equal in length, subquadrate; 9th and 10th strongly transverse, 10th twice as broad as long; segments 9–11 equal in width. Prothorax distinctly transverse, barely (0.7) broader than long, strongly and very densely punctured, slightly narrowed basally, somewhat convex, sides slightly curved, finely bordered, forming an angle at a minute but distinct lateral tooth situated near midway of lateral side. Anterior margin of pronotum convex, anterior angle forming a prominent callosity, latter occupying at most $^1/_4$ of side margin, with a small, elongate-oval patch of bare surface visible from above, with an obtusangular caudolateral corner. Lateral margin between callosity and lateral tooth straight, between lateral tooth and posterior angle slightly convex. Basal groove narrow, basal margin with a prominent medial lobe. Legs of male 5–5–4, of female 5–5–5. Scutellum small, transverse. Elytra long, oval, humeral angles rounded, shoulders a little broader than prothorax at lateral tooth, 1. 40–1.46 times longer than combined width and 2.6–2.7 times longer than prothorax, moderately convex, with moderately strongly rounded sides and a broadly rounded apex; punctation somewhat weaker and sparser than on prothorax. Wings fully developed. Length 2.3–2.4 mm. Aedeagus as in Fig. 3.

Remarks: This new species belongs to the group which also includes *Cryptophagus himalaicus* Bruce 1952, *simulator* Grouvelle 1916 and *parallelicollis* Grouvelle 1916. However, it differs from *parallelicollis* as follows: antennae longer, segment 5 usually oblong; eyes of normal size (small in *parallelicollis*); callosity forming a strong concavity at lateral margin of pronotum and occupying $^1/_4$ of margin (thick-

ening of anterior angles only slightly prominent and not projecting on each side of pronotum, occupying $^1/_5$ of lateral margin of pronotum in *parallelicollis).* It differs from *Cryptophagus himalaicus* by the following characters: Eyes finely facetted; pronotum more strongly transverse, 0.6–0.7 times as broad as long; callosity without tip, forming a concavity with lateral margin, patch of bare surface of callosity visible from above; smaller size; structure of aedeagus different. It differs from *Cryptophagus simulator* as follows: Callosity large, forming a strong concavity with lateral margin of pronotum and occupying about $^1/_4$ of lateral margin; club of antenna more strongly transverse, segments 9 and 10 of antenna transverse, 10th strongly transverse, 2.0–2.3 times as broad as long.

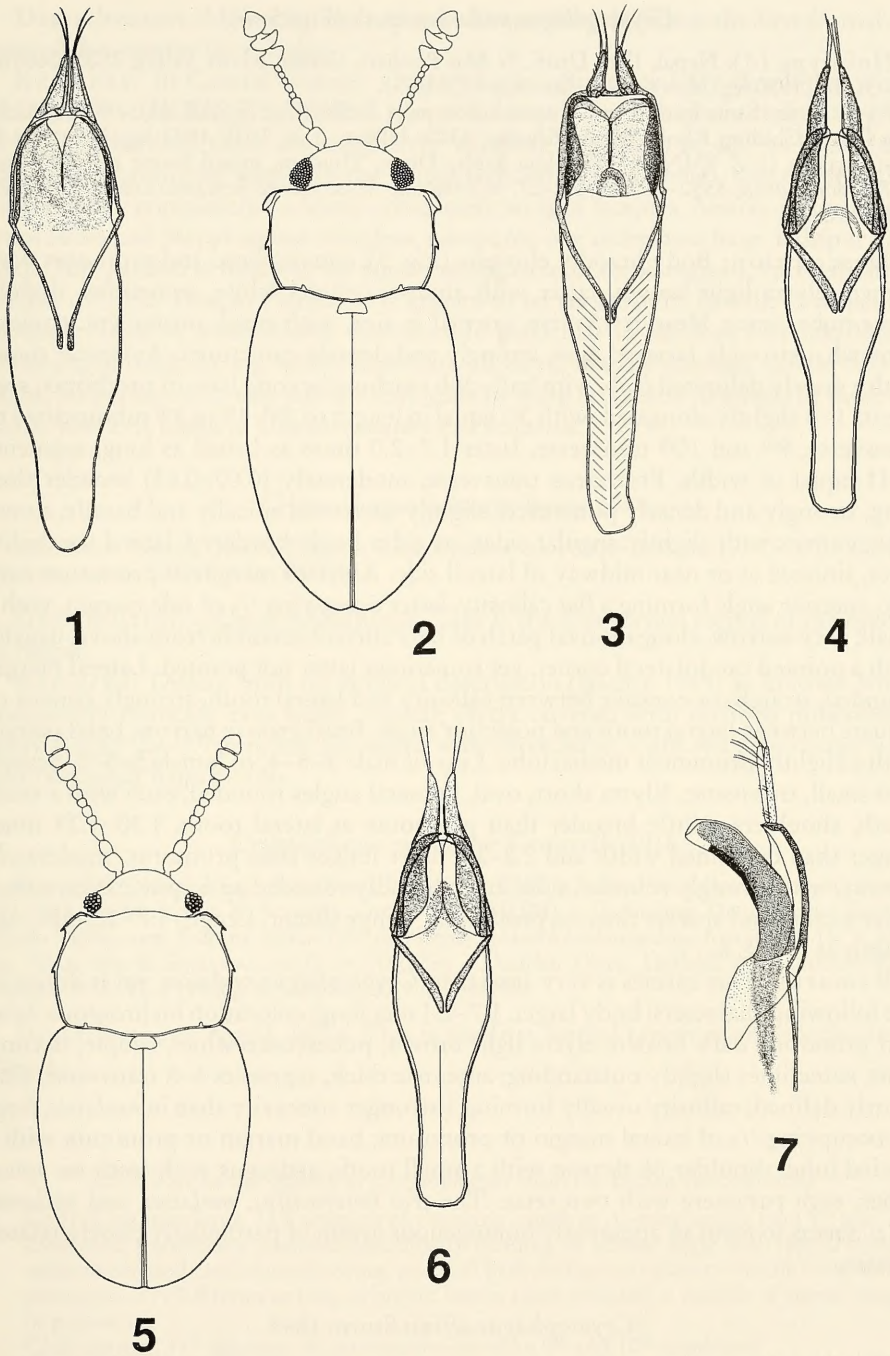
Cryptophagus malaisei Bruce 1945 (Fig. 4)

Material: Nepal, Kaski Distr., above Pothana, 2000 m, 27.–29. IV. 1995 leg. Martens & Schawaller (1 ex. SMNS); – Kaski Distr., above Dhumpus, *Sarauja* Forest, 2100 m, 8.–10. V. 1980 leg. Martens & Ausobsky (2 ♀♀ SMNS); – Gorkha Distr., Chuling Khola, 2800 m, *Quercus semecarpifolia* forest, 2.–3. VIII. 1983 leg. Martens & Schawaller (1 ♂ SMNS); – Panchthar Distr., Paniporua, 2300 m, mixed broadleaved forest, 16.–20. IV. 1988 leg. Martens & Schawaller (9 ex. SMNS, 4 ex. ZMUM); – Kathmandu Valley, Sheopuri Mts., *Quercus semecarpifolia* forest, 2100–2300 m, 25. VI. 1988 leg. Martens & Schawaller (1 ex. SMNS); – Parbat Distr., Chitre, 2400 m, 4. V. 1980 leg. Martens & Ausobsky (1 ex. ZMUM); – Parbat Distr., between Chitre and Ghandrung, 2500–2600 m, 6. V. 1980 leg. Martens & Ausobsky (1 ex. SMNS); – Ramechap Distr., Mohabir Khola E Shivalaya, 2500–2600 m, 6.–7. V. 1997 leg. Schawaller (1 ex. SMNS); – Solukhumbu Distr., Sanam 2700–2800 m, 22.–23. V. 1997 leg. Schawaller (2 ex. SMNS); – Dailekh Distr., Dailekh to Mabuchin Pass, 2300 m, 3.–4. VI. 1998 leg. Schawaller (2 ex. SMNS).

Distribution: NE Burma (Kambaiti), Nepal. This is the first formal record of the species in Nepal.

Remarks: This species has been described from a single female holotype. The new samples at hand allow both to elucidate variation and considerably alter/complement the diagnosis of the apparently highly variable *malaisei.*

Description: Body 1.4–1.9 mm long, usually monochromous dark brown, rarely light brown, yet sometimes head and pronotum slightly darker than elytra. Pubescence varying strongly from simple and loose, with some or all hairs slightly outstanding to occasionally double, with both inclined and outstanding hairs present. Eyes small, coarsely facetted, usually considerably prominent, conical. Antennae rather slender, thin, longest segment of flagellum usually second, sometimes third; segments 4–8 slightly oblong, sometimes subquadrate to even slightly transverse; club of antenna from rather weakly to strongly transverse, 10th segment strongly transverse. Pronotum transverse, 1.4–1.6 times as broad as long. Lateral margin of pronotum between callosity and lateral tooth straight or concave. Lateral tooth small, situated at or in front of middle of lateral margin. Callosity small, weakly thickened, flat, occupying $^1/_7$ of lateral margin, usually terminating in a small denticle, but occasionally without it, forming an obtuse angle with lateral margin. Basal margin of pronotum slightly rounded, either without or with weak medial lobe. Protarsi of male thickened. Humeral angles of elytra regularly rounded, shoulders with or without weak tooth. Different stages of wing reduction are observed: usually these are completely reduced, but there are specimens with weakly to even almost fully developed wings. Aedeagus as in Fig. 4; it has never been described yet; with characteristic apical lobes lacking teeth but possessing long, slender parameres (like in *heteroclitus)*, right paramere with three, left one with two long setae.



Figs 1–7. 1. *Cryptophagus anxiosus,* male genitalia; – 2. *C. honoratus* sp. n., dorsal view; – 3. *C. honoratus* sp. n., male genitalia; – 4. *C. malaisei,* male genitalia; – 5. *C. pedarius* sp. n., dorsal view; – 6. *C. pedarius* sp. n., male genitalia; – 7. *Loberus sinuaticollis,* aedaegus and paramere.

Cryptophagus pedarius sp. n. (Figs 5–6)

Holotype (♂): Nepal, Ilam Distr., N Mai Pokhari, Gitang Khola Valley, 2500–2600 m, 28.–31. III. 1980 leg. Martens & Ausobsky (SMNS).

Paratypes: Same locality and date as holotype (1 ♀ SMNS, 1 ♀ ZMUM); – Nepal, Gorkha Distr., Chuling Khola, Meme Kharka, 3300–3400 m, 5.–6. VIII. 1983 leg. Martens & Schawaller (1 ♂ SMNS); – Sankhua Sabha Distr., Thudam, mixed forest mainly *Betula/Rhododendron,* 3550–3650 m, 25.–27. V. 1988 leg. Martens & Schawaller (1 ♂ SMNS, 1 ♂ ZMUM).

Description: Body braodly elongate (Fig. 5), convex; head and prothorax dark brown, elytra light brown, latter with almost inclined white, sometimes slightly loose pubescence. Head transverse, normal in size, with small, prominent, conical, somewhat strongly facetted eyes, strongly and densely punctured. Antennae short, with a poorly delimited club, with half-club reaching beyond base of prothorax; segments 1–3 slightly elongated, with 3rd equal in length to 2nd; 4th to 8th subquadrate to transverse, 9th and 10th transverse, latter 1.7–2.0 times as broad as long; segments 9–11 equal in width. Prothorax transverse, moderately (0.60–0.63) broader than long, strongly and densely punctured, slightly narrowed apically and basally, somewhat convex with slightly angular sides, its sides finely bordered, lateral tooth distinct, situated at or near midway of lateral side. Anterior margin or pronotum convex, anterior angle forming a flat callosity, latter occupying $^1/_5$ of side margin, with a small, very narrow, elongate-oval patch of bare surface invisible from above, usually with a pointed caudolateral corner, yet sometimes latter not pointed. Lateral margin rounded, straight or concave between callosity and lateral tooth, strongly convex or sinuate between lateral tooth and posterior angle. Basal groove narrow, basal margin with a slightly prominent medial lobe. Legs of male 5–5–4, of female 5–5–5. Scutellum small, transverse. Elytra short, oval, humeral angles rounded, each with a small tooth, shoulders a little broader than prothorax at lateral tooth, 1.30–1.35 times longer than combined width and 2.2–2.4 times longer than prothorax, moderately convex, with strongly rounded sides and a broadly rounded apex; punctation somewhat weaker and sparser than on prothorax. Wings absent. Length 1.7–2.1 mm. Aedeagus as in Fig. 6.

Remarks: This species is very similar to *Cryptophagus malaisei,* yet it differs in the following characters: body larger, 1.7–2.1 mm long; coloration bichromous: head and pronotum dark brown, elytra light brown; pubescence white, simple, decumbent, sometimes slightly outstanding; antennae thick, segments 4–8 transverse, club poorly defined; callosity usually forming a stronger concavity than in *malaisei,* larger, occupying $^1/_5$ of lateral margin of pronotum; basal margin or pronotum with a medial lobe; shoulder of elytron with a small tooth; aedeagus with teeth on apical lobes, each paramere with two setae. The trio *heteroclitus, malaisei,* and *pedarius* sp. n. seems to form an apparently homogenous group of particularly closely related species.

Cryptophagus affinis Sturm 1845

Material: Nepal, Mustang Distr., Lupra, in *Apodemus wardi* nest, 29. IX. 1997 leg. Volzit (2 ex. ZMUM); – Mustang Distr., Purano Marpha, 3200 m, 9.–11. V. 1995 leg. Martens & Schawaller (1 ♂ SMNS); – Lalitpur Distr., Phulchoki Mt., 1800–2000 m, 25. IV. 1995 leg. Martens & Schawaller (1 ex. SMNS); – India, Kashmir, Tangmarg, Pir Panjal Mts., 2600 m, 21.–25. V. 1976 leg. Martens & Schawaller (18 ex. SMNS, 4 ex. ZMUM).

Distribution: Holarctic, including India and Nepal. This is the first formal report of this species from India.

Remarks: In Central Europe, *Cryptophagus affinis* has fully developed wings (Reška 1994). In Kirghizia, central part of Central Asia, it displays various degrees of wing reduction: there are completely wingless specimens as well as individuals with underdeveloped wings. In the Kopetdagh Mts. (Turkmenia), this species is represented by completely or nearly completely winged samples. Nearly all specimens from India and Nepal appear wingless, except for one individual from Lalitpur District. This pattern is likely to be due to wind force in these regions. In Kashmir as well as over the Tibetan Plateau, it is known to be very windy. In valleys which cut through Nepal in a meridional direction, in particular in the Kali Gandaki Valley (Mustang Distr.), strong winds dominate all days, usually calming down only at night. So perhaps it is this pattern that leads to wing reduction in *affinis* in these regions, just as it happens also in *malaisei* and *pedarius*.

Cryptophagus robustus Bruce 1959

Material: Nepal, Dolpo, Ringmo, Lake Phoksumdo, 3600–3900 m, 10.–15. VI. 1973 leg. Martens (1 ex. SMNS, 1 ex. ZMUM).

Distribution: Nepal, Afghanistan. This is the first formal record of the species in Nepal.

Remarks: Differs from the original description (Bruce 1959) as follows: wings completely reduced; eyes small, conical; elytra covered with inclined pubescence; body length 2.4–2.9 mm; left paramere with three setae, right with two large setae and two small hairs on top.

Cryptophagus simulator Grouvelle 1916

Material: Nepal, Panchthar Distr., Paniporua, 2300 m, mixed broadleaved forest, 16.–20. IV. 1988 leg Martens & Schawaller (1 ex. ZMUM); – Taplejung Distr., upper Simbua Khola Valley, near Tseram, 3250–3350 m, mature *Abies-Rhododendron* forest, 10.–15. V. 1988 leg. Martens & Schawaller (1 ex. SMNS); – Dailekh Distr., Dailekh to Mabuchin Pass, 2300 m, 3.–4. VI. 1998 leg. Schawaller (1 ex. SMNS).

Distribution: Nepal, India. This is the first formal report of the species from Nepal.

2.1.3. Key to the species of *Cryptophagus* from the Indian subcontinent

1 Club of antenna large, 11th segment of the same length as or even longer than 9th and 10th combined; pubescence decumbent; callosity forming an obtuse angle with lateral margin, without pointed caudolateral corner, patch of bare surface on callosity visible from above; pronotum 0.7–0.8 times as long as broad; lateral tooth situated in middle of lateral margin of pronotum 2

– Club normal, 11th segment of antenna shorter than 9th and 10th combined 3

2 Body flatter. Antennae thick, segments 9 and 10 strongly transverse, 10th much wider than 9th, while 11th unusually large, oval, narrowed from middle on, longer than segments 8–10 combined. Callosity not protruding beyond lateral margin. Body length 3 mm. India ..... *clavator*

– More convex. Antennae slender, club large: segments 9 and 10 transverse, 9th more weak-

ly, 10th more strongly so, 10th almost twice as wide as 9th, while 11th wide and as long as 9th and 10th combined. Callosity projecting beyond margin, occupying about 1/4 of lateral margin. Sides of pronotum slightly curved, lateral margin straight between lateral tooth and basal angle, slightly concave between callosity and tooth. Base of pronotum with indistinct longitudinal wrinkles. Body length 2.7 mm. Aedeagus as depicted elsewhere (LYUBARSKY 1997: Fig. 3). Nepal, India, Burma ..... *aurovestitus*

3 Monochromous, dark, black of blackish-brown. Pronotum moderetely transverse. Eyes normal, hemispherical, finely facetted 4
– Lighter, red or brown, sometimes light with dark spots on elytra 5

4 Antennae long, slender, all joints of flagellum oblong, club moderately transverse, segments 9 and 10 1.33 times as broad as long. Eyes normal, finely facetted, hemispherical. Pronotum slightly transverse, 0.7–0.8 times as long as broad. Lateral margin of pronotum slightly angulated, almost parallel. Callosity small, occupying 1/5 of lateral margin, acuminate. Lateral tooth of pronotum small, situated at or in front of middle of lateral margin. Body oblong, narrow, with simple inclined pubescence. Body length 1.8–2.2 mm. Aedeagus as depicted elsewhere (LYUBARSKY 1997: Fig. 2). India ..... *atratus*
– Antennae less slender, segments 4, 7 and 8 subquadrate, club well-marked, 9th and 10th segments distinctly transverse, 1.6 and 1.7 times as wide as long, respectively. Sides of pronotum angulated, callosity large, occupying 1/4 of lateral margin, slightly prominent, with a wide patch of bare surface, ending up in an obtuse angle, non-acuminate, more or less smoothly turning into lateral margin of pronotum. Lateral tooth in middle of lateral margin. Body length 2 mm. Nepal, India ..... *auropubens*

5 Eyes small, conical, slightly prominent. Lateral tooth small (occasionally absent), situated at or in front of middle of lateral margin of pronotum. Pronotum slightly transverse, 0.7 times as long as broad 6
– Eyes of normal size, hemispherical 10

6 Eyes finely facetted. Body stout, wide, elytra 2.1 times longer than pronotum, pubescence inclined. Antennae long, all segments of flagellum oblong, 3rd longest, club moderately transverse, 9th and 10th segments 1.3 times as broad as long. Pronotum moderately transverse, 0.7–0.8 long as broad, strongly narrowed basally. Callosity strongly prominent, forming an acute angle with lateral margin, with or without tip. Patch of bare surface of callosity invisible from above. Lateral margin of pronotum strongly angulated, with a small lateral tooth in middle. Paramere as depicted elsewhere (BRUCE 1959: Fig. 1D). Body length 2.4–3.0 mm. Nepal, Afghanistan ..... *robustus*
– Eyes coarsely facetted. Pubescence loose, outstanding, sometimes double, i.e. in addition to decumbent pubescence, outstanding hairs present as well. Body length less than 2.4 mm. Antennae shorter, segments 4–8 frequently transverse, 3rd shorter than 1st and frequently not longer than 5th 7

7 Wings fully developed. Coloration often bichromous, elytra with a black band, sometimes reduced to two vague spots. Callosity a little larger, occupying 1/4–1/5 of lateral margin of pronotum, usually non-acuminate 8
– Wings usually absent or reduced. Elytra uniform light to dark brown, with neither bands nor spots. Pubescence often outstanding. Callosity a little less, occupying 1/7–1/5 of lateral margin of pronotum and usually ending up as pointed 9

8 Callosity rather large, moderately prominent, occupying approximately 1/4 of lateral margins, terminating in an obtuse angle without tooth. Antennae short, segments of flagellum slightly elongated or subquadrate, 5th not longer than 6th. Club well-defined, 9th and 10th segments strongly transverse, each 1.5 times as broad as long. Pronotum narrowed basally, strongly transverse, lateral tooth small, situated in front of middle of lateral margin. Body red, head and pronotum darker, red-brown, elytra ligther, yellow-brown, occasionally vague dark spots on sides of elytra. Body length 2.2–2.4 mm. Parameres rather short, shorter than aedeagus. Aedeagus as in Fig. 1. Nepal, India ..... *anxiosus*
– Elytra usually with a black band, latter sometimes splitting into two spots near external edge of each elytron, sometimes completely vanishing. Callosity occupying 1/5 of lateral margin, forming a weak obtuse angle with lateral margin, sometimes with small tooth. An-

tennae rather short, joints of flagellum a little elongated or subquadrate. Club moderately transverse, not well-defined, 9th segment very slightly transverse, 10th moderately transverse, 1.5 times wider than 9th. Body length 1.9–2.2 mm. Parameres very long, longer than aedeagus, latter as depicted elsewhere (LYUBARSKY 1997: Fig. 6). Nepal, India *heteroclitus*

9 Body shortly oval, monochromous, red-brown, sometimes pronotum a little darker, dark brown, and elytra light brown. Pronotum widest in middle, together with callosities narrower than at lateral tooth, slightly narrowed from lateral tooth to basal angles, seemingly expanded in basal half (sometimes sides almost straight). Antennae thin, slender, segment 9 and 10 rather transverse. Callosity narrow, with or without a narrow patch of bare surface, occupying 1/7 of lateral margin of pronotum, usually with a small tooth, occasionally without tooth. Basal margin of pronotum rounded, with or without slight medial lobe. Punctation of pronotum and elytra very dense. Aedeagus as in Fig. 4. Body length 1.4–1.9 mm. Nepal, Burma ..... *malaisei*

– Body bichromous: head and pronotum dark brown, elytra light brown. Pubescence white, simple, inclined, sometimes slightly outstanding. Antennae thick, segments 4–8 transverse, club not well-defined, weakly transverse. Callosity usually more strongly prominent than in *malaisei,* larger, occupying 1/5 of lateral margin or pronotum. Basal margin of pronotum with a medial lobe. Each shoulder with a small tooth. Aedeagus as in Fig. 6: male genitalia differing from those of *malaisei* by teeth on apical lobes of aedeagus and two setae both on right and left paramere. Body length 1.7–2.1 mm. Nepal ..... *pedarius* **sp. n.**

10 Pubescence double. Callosity small, slightly prominent, not or weakly concave at lateral margin of pronotum, with a small tooth. Lateral tooth small 11

– Pubescence simple, all hairs inclined. Callosity usually larger, more strongly concave at lateral margin of pronotum 15

11 Eyes rather finely facetted. Antennae slender, segments 9 and 10 moderately transverse. Lateral margin of pronotum slightly rounded, more strongly narrowed basally than apically, lateral tooth at or in front of middle of lateral margin. Wings frequently reduced. Body length 1.7–2.3 mm. Holarctic ..... *affinis*

– Eyes more coarsely facetted. Wings fully developed. Size over 2.5 mm 12

12 Lateral tooth situated approximately in middle of lateral margin of pronotum 13

– Lateral tooth situated a little in front of middle of lateral margin of pronotum. Pronotum distinctly transverse. Elytra monochromous, red 14

13 Lateral margin between lateral tooth and basal angle of pronotum slightly concave. Pronotum slightly transverse, subquadrate. Elytra infuscate around scutellum. Body length 2.6 mm. India ..... *lomus*

– Pronotum distinctly transverse. Lateral margin between lateral tooth and basal angle of pronotum straight or slightly convex. Elytra monochromous, red. Body length 2.8 mm. Nepal ..... *johnsoni*

14 Lateral margin between lateral tooth and basal angle of pronotum slightly concave. Body length 2.6 mm. India ..... *bengalensis*

– Lateral margin between lateral tooth and basal angle of pronotum straight or slightly convex. Body length 2.5 mm. Nepal ..... *martensi*

15 Callosity large, forming a strong concavity with lateral margin of pronotum, occupying about 1/4 of lateral margin. Club of antenna strongly transverse, segments 9 and 10 transverse, 10th strongly transverse, 2.0–2.3 times as broad as long 16

– Callosity small, forming a weak concavity with lateral margin of pronotum, occupying 1/5–1/4 of lateral margin. Pronotum usually strongly transverse, 0.6–0.7 times as long as broad 17

16 Eyes coarsely facetted, hemispherical. Pronotum slightly transverse, 0.65–0.85 times as long as broad, strongly narrowed basally. Callosity large, forming a strong concavity with lateral margin, with a tooth and a well-expressed patch of bare surface. Lateral tooth usually at or, sometimes, in front of middle of lateral margin. Body length 2.1–3.0 mm. Aedeagus as depicted elsewhere (BRUCE 1952: pl. XI, IIIA). India ..... *himalaicus*

– Eyes finely facetted. Pronotum strongly transverse, 0.6–0.7 times as long as broad. Callosity without tooth, forming a strong concavity with lateral margin, patch of bare surface visible from above. Aedeagus as in Fig. 3. Body stout, length 2.3–2.4 mm. Nepal ..... ***honoratus* sp. n.**

17 Callosity rather small, taking up $^1/_5$ of lateral margin, without tooth. Club of antenna well-defined, segment 10 about 2 times as broad as long. Pronotum parallel-sided, lateral margin straight, slightly narrowed basally. Lateral tooth small, situated at or in front of middle of lateral margin. Lateral margin between lateral tooth and basal angles slightly concave. Body length 2.2–2.7 mm. India ..... ***parallelicollis***

– Callosity large, occupying $^1/_4$ of lateral margins, forming a concavity with lateral margin of pronotum, with a small tooth. Club of antenna slightly transverse, segment 10 about 1.5 times as broad as long. Pronotum strongly narrowed basally, its lateral margin rounded, with a tooth in middle, convex between lateral tooth and basal angle. Body length 2.2–2.9 mm. Aedeagus as depicted elsewhere (Lyubarsky 1997: Fig. 4). India . ***simulator.***

2.1.4. *Henoticus* Thomson 1868

Henoticus serratus nepalensis Johnson 1975

Material: Nepal, Dolakha Distr., SW Kalinchok Mt., 3100 m, 19.–23. IV. 1995 leg. Martens & Schawaller (1 ♂ SMNS).

Distribution: Nepal, India.

Henoticus indicus Grouvelle 1916

Material: Nepal, Kathmandu Valley, Phulchoki Mt., 2600–2650 m, 21.–22. III. 1980 leg. Martens & Ausobsky (1 ♀ SMNS).

Distribution: Nepal, India. This is the first formal record of the species in Nepal.

Henoticus regificus Johnson 1975

Material: Jumla Distr., Khali Lagna Pass, 3500 m, 16.–17. VI. 1998 leg. Schawaller (6 ex. SMNS, 3 ex. ZMUM); – Dailekh Distr., Dailekh to Mabuchin Pass, 2300 m, 3.–4. VI. 1998 leg. Schawaller (2 ex. SMNS).

Distribution: Nepal.

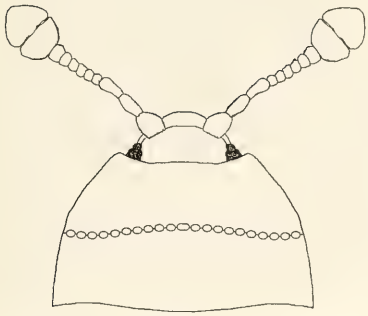
2.1.5. *Micrambe* Thomson 1863

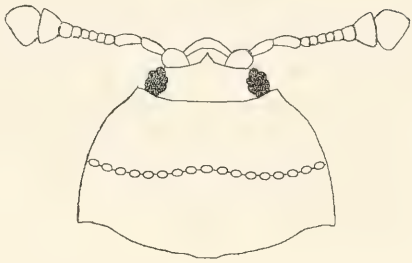
Micrambe sp.

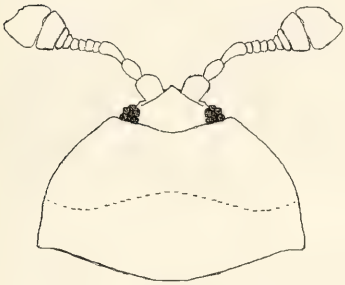
Material: Nepal, Manang Distr., Marsyandi, above Bagarchap, 2200 m, *Acer-Quercus,* IV. 1980 leg. Martens & Ausobsky (1 ex. SMNS); – Gorkha Distr., Chuling Khola, 2800 m, *Quercus semecarpifolia* forest, 2.–3. VIII. 1983 leg. Martens & Schawaller (2 ex. SMNS).

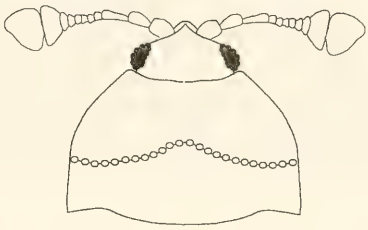
2.1.6. *Himascelis* Sen Gupta 1978

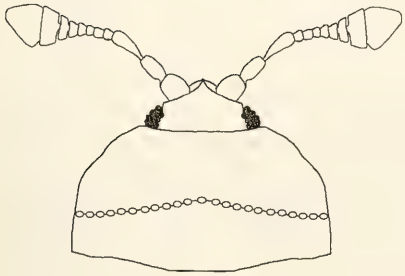
The genus *Himascelis* is currently known to contain two species: *brunneus* Sen Gupta 1978, distributed in India (West Bengal, Himachal Pradesh, Kashmir), Nepal and Bhutan, and *kashmirensis* Sen Gupta & Pal 1980, from India (Kashmir) (Sen Gupta 1978; Sen Gupta & Pal 1980). Regrettably, I have failed to receive their types for re-examination.











Figs 8–15. 8. *Himascelis chinensis,* head and pronotum; – 9. *H. similis,* head and pronotum; – 10. *H. nepalensis* sp. n., head and pronotum; – 11. *H. nepalensis* sp. n., aedeagus; – 12. *H. gracilis* sp. n., head and pronotum; – 13. *H. gracillis* sp. n., aedeagus; – 14. *H. turgidus* sp. n., head and pronotum; – 15. *H. turgidus* sp. n.; aedeagus.

Recently, NIKITSKY (1996) has described two Chinese species of *Sternodea* Reitter 1875: *chinensis* Nikitsky 1996 and *similis* Nikitsky 1996. The types of these species have been revised and, as a result, both *Sternodea chinensis* and *Sternodea similis* appear to actually belong to *Himascelis.*

In addition, three new congeners have been found in Nepal, with their descriptions and a general key to species of *Himascelis* presented in this paper.

An overview of the known species belonging to *Himascelis* shows this genus to be indeed closely related to *Sternodea.* Yet the new species described herein fail to fit exactly in the modern generic diagnoses as given by LESCHEN (1996). For example, the longitudinal mesosternal line is equally weakly developed in both genera. In addition, in both genera the transverse line of the pronotum is present in some species but absent in some others. Despite this, the antennal grooves present in *Himascelis* make it readily distinguishable from *Sternodea.*

Himascelis chinensis (Nikitsky 1966) **comb. n.** (Fig. 8)

Remarks: The holotype in ZMUM has been re-examined. As a result, the species proves to be actually referred to *Himascelis,* because the holotype displays well-developed antennal grooves and all other characters of this genus. Pronotum with a transverse line (Fig. 8). The original description (NIKITSKY 1996) is inaccurate as in fact this species differs from congeners in having no boss on the frons.

Distribution: China (Shaanxi).

Himascelis similis (Nikitsky 1996) **comb. n.** (Fig. 9)

Remarks: The holotype and paratype, both in ZMUM, have been restudied. As a result, this species is likewise referred to *Himascelis,* because the antennal grooves are well-developed and all other traits are characteristic of this genus. Pronotum with a transverse line (Fig. 9).

Distribution: China (central Sichuan).

Himascelis nepalensis **sp. n.** (Figs 10–11)

Holotype (♂): Nepal, Ilam Distr., Mai Pokhari, 2100–2200 m, *Castanopsis* forest remains, 9.–10. IV. 1988 leg. MARTENS & SCHAWALLER (SMNS).

Paratypes: Same locality and data as holotype (3 ex. SMNS, 1 ex. ZMUM); – Nepal, Ilam Distr., Gitang Khola, 2550 m, 28.–31. III. 1980 leg. MARTENS & AUSOBSKY (1 ex. SMNS); – Taplejung Distr., upper Tamur Valley, resthut/side-valley, broadleaved forest with bamboo, 2450 m, 19. V. 1988 leg. MARTENS & SCHAWALLER (1 ex. SMNS, 1 ex ZMUM); – Panchthar Distr., Dhorpar Kharka, mature *Rhododendron-Lithocarpus* forest, 2700 m, 13.–16. IV. 1988 leg. MARTENS & SCHAWALLER (2 ex. SMNS); – Panchthar Distr., Paniporua, 2300 m, mixed broadleaved forest, 16.–20. IV. 1988 leg. MARTENS & SCHAWALLER (1 ex. SMNS); – Parbat Distr., Chitre, 2400 m, 4. V. 1980 leg MARTENS & AUSOBSKY (1 ex. SMNS); – Gorkha Distr., Chuling Khola, Djinski Kharka, 3400 m, *Abies* forest, 4.–5. VIII. 1983 leg. MARTENS & SCHAWALLER (1 ♂ ZMUM).

Description: Body uniform brown, elliptical-oval, stout, 1.65–1.75 times as long as wide. Length of body 1.2–1.4 mm. Eyes small, strongly prominent laterally, coarsely facetted. Frons coarsely punctate, with a triangular boss (Fig. 10). Antenna (Fig. 10) stout, flagellum broader than length of claw joint; basal joint cylindrical, distinctly longer than thick; second much narrower than basal, cylindrical; third 1.2 times longer than second, slightly curved, club-like; each of 4th to 7th joints some-

what wider than long; 8th and 9th transverse, 3 times as wide as long; two apical joints forming a large club, 10th approximately twice as wide as long, apical joint 2 times longer than previous one. Pronotum subtrapezoidal, approximately twice as wide as long; lateral sides strongly narrowing in apical half; posterior margin weakly but distinctly bisinuate; basal corners sharply angulate. Punctation of pronotum coarse and moderately dense. Transverse line consisting of punctures, weak, undistinguished (like in *Sternodea baudii* Reitter 1875 and some specimens of *Sternodea raddei* Reitter 1876, LYUBARSKY 1987), extending to sides of pronotum. Scutellum transverse. Hind tarsi of male 4-segmented. Elytral base slightly wider than pronotal base; elytral sides arcuate in anterior half; elytral punctation coarse. Pubescence somewhat outstanding, long; hairs approximately 2 times longer than claw joint. Wings absent. Aedeagus as in Fig. 11.

Himascelis gracilis sp. n. (Figs 12–13)

Holotype (♂): Nepal, Taplejung Distr., upper Tamur Valley, resthut/side-valley, broadleaved forest with bamboo, 2450 m, 19. V. 1988 leg. MARTENS & SCHAWALLER (SMNS).

Paratypes: Same locality and data as holotype (1 ex. SMNS); – Nepal, Parbart Distr., between Deorali and Chitre, 2700 m, 1.–2. V. 1995 leg. MARTENS & SCHAWALLER (1 ex. SMNS); – Sankhua Sabha Distr., above Pahakhola, 2600–2800 m, *Quercus semecarpifolia-Rhododendron* forest, 31. V.– 3. VI. 1988 leg. MARTENS & SCHAWALLER (3 ex. SMNS, 3 ex. ZMUM); – Manang Distr., above Bagarchap, *Acer-Quercus* forest, 2400 m, 13.–14. IV. 1980 leg. MARTENS & AUSOBSKY (1 ex. SMNS).

Description: Body uniform yellowish-brown, elliptical-oval, elongate, 1.70–1.87 times as long as wide. Length of body 1.2–1.4 mm. Eyes small, strongly prominent laterally, coarsely facetted. Frons coarsely punctate, with a triangular boss (Fig. 12). Antenna (Fig. 12) slender, flagellum somewhat narrower than length of claw joint; basal joint cylindrical, distinctly longer than wide; second much narrower than basal, cylindrical; third 1.2 times longer than second, straight; each of 4th to 7th joints somewhat wider than long; 8th and 9th transverse, 2.5–3.0 times as wide as long; two apical joints forming a large club, 10th approximately twice as wide as long, apical joint 2 times longer than previous one. Pronotum subtrapezoidal, approximately twice as wide as long; lateral sides strongly narrowing in apical half; posterior margin weakly but distinctly bisinuate; basal corners sharply angulate. Punctation of pronotum weak and moderately dense. Transverse line consisting of punctures, more or less well-developed, extending to sides of pronotum. Scutellum transverse. Hind tarsi of male 4-segmented. Elytral base slightly wider than pronotal base; elytral sides arcuate in anterior half; elytral punctation weak. Pubescence almost decumbent, shorter than in previous species; hairs approximately 1.5 times longer than claw joint. Wings absent. Aedeagus as in Fig. 13.

Himascelis turgidus sp. n. (Figs 14–15)

Holotype (♂): Nepal, Panchthar Distr., Dhorpar Kharka, mature *Rhododendron-Lithocarpus* forest, 2700 m, 13.–16. IV. 1988 leg. MARTENS & SCHAWALLER (SMNS).

Paratypes: Same locality and data as holotype (1 ♂ SMNS, 1 ♂ ZMUM); – Nepal, Taplejung Distr., Omje Kharka NW Yamputhin, mature mixed broadleaved forest, 2300–2500 m, 1.–6. V. 1988 leg. MARTENS & SCHAWALLER (1 ex. SMNS, 1 ex. ZMUM).

Description: Body uniform brown or dark brown, elliptical-oval, elongate, 1.75–1.85 times as long as wide. Length of body 1.35–1.50 mm. Eyes small, strongly

prominent laterally, coarsely facetted. Frons coarsely punctate, with a triangular boss (Fig. 14). Antenna (Fig. 14) slender, flagellum somewhat narrower than length of claw joint; basal joint cylindrical, distinctly longer than wide; second much narrower than basal, cylindrical; third 1.5 times longer than second, slightly curved, club-like; each of 4th to 7th joints somewhat wider than long; 8th and 9th transverse, 3 times as wide as long; two apical joints forming a large club, 10th approximately twice as wide as long, apical joint 1.5 times longer than previous one. Pronotum subtrapezoidal, approximately twice as wide as long; lateral sides strongly narrowing in apical half; posterior margin weakly but distinctly bisinuate; basal corners sharply angulate. Punctation of pronotum coarse and moderately dense. Transverse line consisting of punctures, weak, undistinguished, extending to sides of pronotum. Scutellum transverse. Hind tarsi of male 4-segmented. Elytral base slightly wider than pronotal base; elytral sides arcuate in anterior half; elytral punctation coarse. Pubescence somewhat outstanding, long; hairs approximately 2 times longer than claw joint. Wings absent. Aedeagus as in Fig. 15.

2.1.7. Key to the Indian and Chinese species of *Himascelis*

Remarks: The pairs *brunneus/chinensis* and *kashimirensis/similis* are poorly distinguished, chiefly because material is too limited (1–2 specimens). In particular, both *kashmirensis* and *chinensis* are known only from the female holotypes. The aedeagi of *brunneus* and *similis* are generally very similar.

1 8th and, especially, 9th joint of antenna strongly transverse (Figs 10, 12, 14), 9th approximately 3 times as wide as long. Second joint shorter than third one. Transverse line consisting of punctures usually weak and undistinguished 2
– 8th and 9th joint of antenna weakly transverse (Figs 8–9), 9th approximately 1.5 times as wide as long. Second joint equal in length to third one. Antenna slender, its 3th joint straight, weakly club-like. Pronotum strongly punctured. Transverse line consisting of punctures sometimes well-developed 4

2 Antenna stout (Fig. 10), flagellum somewhat broader than length of claw joint. Third joint of antenna clearly club-like, slightly curved, 1.25 times longer than second joint. 11th joint approximately 2 times longer than previous one. Pronotum strongly punctured. Pubescence of elytra somewhat outstanding, longer, approximately 2 times longer than claw joint. Body brown, stout, 1.65–1.75 times as long as wide. Aedeagus as in Fig. 11. Length 1.2–1.4 mm. Nepal ..... ***nepalensis* sp. n.**
– Antenna slender, flagellum somewhat narrower than length of claw joint 3

3 Third joint of antenna approximately straigth (Fig. 12), about 1.25 times longer than second joint. 11th joint approximately 2 times longer than previous one. Pronotum slightly punctured. Pubescence of elytra decumbent, shorter, somewhat less than 2 times longer than claw joint. Body light brown, elongate, 1.70–1.87 times as long as wide. Aedeagus as in Fig. 13. Length 1.2–1.4 mm. Nepal ..... ***gracilis* sp. n.**
– Third joint of antenna slightly curved (Fig. 14), club-like, 1.5 times longer than second joint. 11th joint approximately 1.5 times longer than previous one. Pronotum strongly punctured. Pubescence of elytra outstanding, shorter, approximately 2 times longer than claw joint. Body brown or dark brown, elongate, 1.75–1.85 times as long as wide. Aedeagus as in Fig. 15. Length 1.35–1.50 mm. Nepal ..... ***turgidus* sp. n.**

4 Frons with a triangular boss (Fig. 9) 5
– Frons without triangular boss (Fig. 8) 6

5 Body yellow-brown to black-brown, elongate, 1.90–1.95 times as long as wide. Third joint of antenna equal to or slightly longer than any of joints 4–6. Elytra 1.19 as long as wide. Length 1.33–1.45 mm. India, Nepal, Bhutan ..... ***brunneus***

– Body red-brown, elongate, 1.9 times as long as wide. Third joint of antenna as long as joints 4–6 combined. Elytra 1.22–1.30 times as long as wide. Length 1.3–1.5 mm. China (central Sichuan) ..... *similis*

6 Pubescence more or less decumbent. Body red-brown, stout, 2.3 times as long as wide. 11th joint of antenna approximately 1.3 times longer than 10th joint. Length 1.36 mm. India ..... *kashmirensis*

– Pubescence of elytra more or less outstanding, less than about 2 times longer than claw of joint. Body red-brown, stout, 1.73 times as long as wide. 11th joint of antenna slightly longer than preceding one. Length 1.3 mm. China (Shaanxi) ..... *chinensis.*

2.1.8. *Caenoscelis* Thomson 1863

From Nepal, only a single species has been described: *Caenoscelis franzi* Sen Gupta & Basak 1985 (Sen Gupta & Basak 1985). *Caenoscelis jakesi* Johnson 1972 has been described from Afghanistan (Herat).

Caenoscelis franzi Sen Gupta & Basak 1985 (Fig. 16)

Material: Nepal, Ilam Distr., N Mai Pokhari, Gitang Khola Valley, 2500–2600 m, 28.–31. III. 1980 leg. Martens & Ausobsky (1 ♂ ZMUM); – Parbat Distr., between Deorali and Chitre, 2700 m, 1.–2. V. 1995 leg. Martens & Schawaller (1 ♀ SMNS); – Panchthar Distr., Paniporua, 2300 m, mixed broadleaved forest, 16.–20. IV. 1988 leg. Martens & Schawaller (1 ♀ SMNS).

Distribution: Nepal.

Remarks: This distinctive species is similar as *Caenoscelis ferruginea* (Sahlberg 1820) and *Caenoscelis jakesi* on account of the structure of the antennal club. *Caenoscelis franzi* differs from them in the structure of the aedeagus (Fig. 16), the feebly convex body, the dark coloration and the reduced lateral submarginal line of the pronotum.

2.1.9. *Atomaria Stephens* 1830

A key to the Indian species of *Atomaria* has been published by Johnson (1970). The fauna of the Indian subcontinent contains 11 species of *Atomaria: frugi* Lyubarsky 1997, *incertula* Johnson 1970, *khumbuensis* Johnson 1970, *klapperichi* Johnson 1970, *lewisi* Reitter 1877, *obliqua* Johnson 1970, *pudica* Johnson 1970, *torrida* Johnson 1970, *tristis* Johnson 1970 (all from the subgenus *Anchicera* Thomson 1863); *gracilicornis* Reitter 1887, *prolixa* Erichson 1846 (both from *Atomaria* s. str.). Six species have been recorded in Nepal (Johnson 1970, 1971): *incertula, khumbuensis, lewisi, obliqua, torrida,* and *gracilicornis.*

Atomaria barani Brisout 1863, *fasciata* Kolenati 1846, *peltata* Kraatz 1853, *pusilla* (Paykull 1798), *munda* Erichson 1846, *klapperichi, obliqua, lewisi,* and *gracilicornis* have been found in Afghanistan (Johnson 1972). From central China, *Atomaria plecta* Lyubarsky 1966 and *Atomaria angellata* Lyubarsky 1996 have been described (Lyubarsky 1996).

Atomaria fasciata Kolenati 1846

Material: N Afghanistan, Badakshan, Dehgul, 3000 m, 15. VII. 1973 leg. Kabakov (1 ♂ ZMUM); – E Kazakhstan, Dzhungarsky Alatau Mts., Tastau Mt., Jumak, Kokmoin River,

1800 m, *Abies* forest, litter under stones, 4. VIII. 1991 leg. TISCHECHKIN (1 ♂ ZMUM); – same data, Kara-Unghur River, under stones, 3546 m, 8. VIII. 1991 leg. TISCHECHKIN (1 ♀ ZMUM); – same data, Sanyk-Tas Mt., Mynteks River, forest, litter under stones, 2100 m, 11. VIII. 1991 leg. TISCHECHKIN (2 ex. ZMUM); – Kirghizia, N Tyup, Shaty area, 30. VIII. 1987 leg. KURBATOV (1 ex. ZMUM); – Tajikistan, Hissar Mt. Range, 1900 m, 1. IX. 1975 leg. YANUSHEV (1 ex. coll. YANUSHEV); – Zaalaisky Mt. Range, 28. VII. 1975 leg. YANUSHEV (1 ex. coll. YANUSHEV).

Distribution: Mediterranean (S Europe, N Africa), Ukraine (Kharkov, Crimea), Caucasus (Stavropol Prov., N Ossetia, Georgia, Armenia, Azerbaijan), Kirghizia, E Kazakhstan, Tajikistan, Afghanistan.

Remarks: Although *Atomaria fasciata* is distributed as far as Central Asia and Afghanistan in the east, it has not been found yet down to the southern border of the Palaearctic (Himalayas), hence remaining purely Palaearctic. The specimens from the Dzhungarsky Alatau Mts. are the easternmost record of this species.

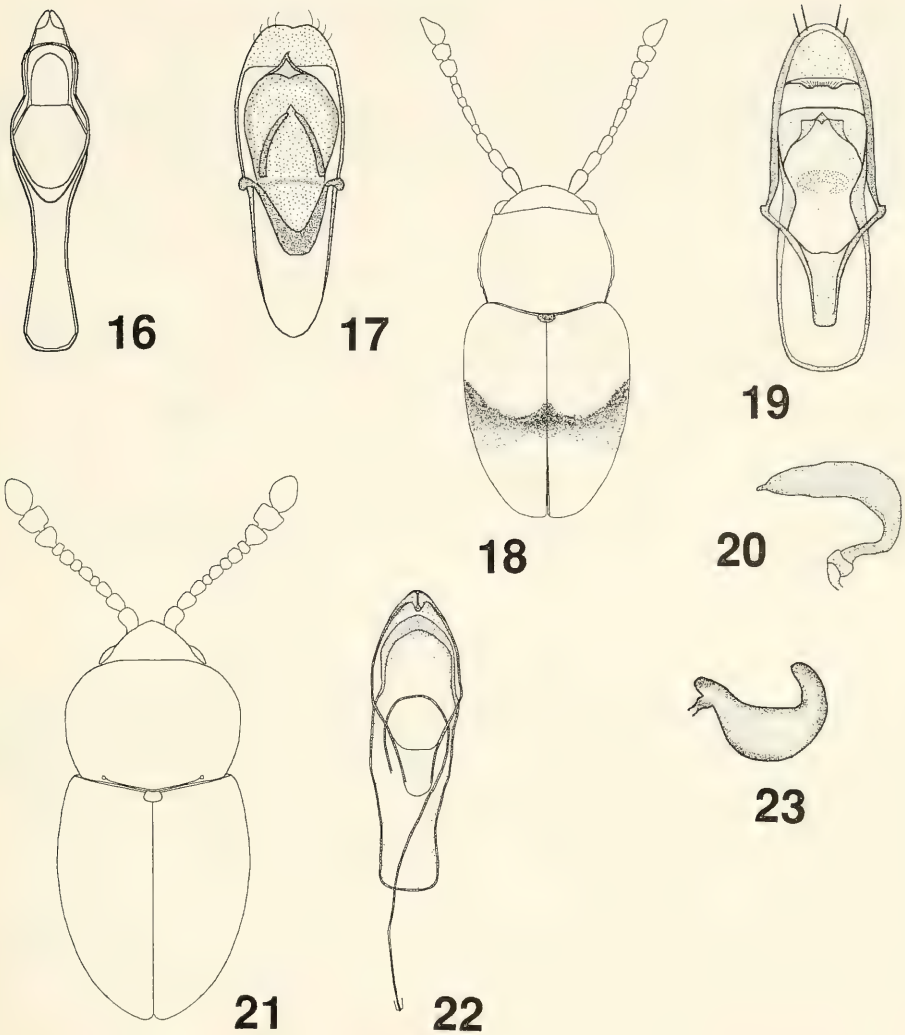
Atomaria lewisi Reitter 1877

Material: Nepal, Dolakha Distr., SW Kalinchok Mt., 3100 m, 19.–23. IV. 1995 leg. MARTENS & SCHAWALLER (2 ex. SMNS, 2 ex. ZMUM); – Kaski Distr., above Pothana, 2000 m, 27.–29. IV. 1995 leg. MARTENS & SCHAWALLER (4 ex. SMNS); – Lalitpur Distr., Phulchoki Mt., 1800–2000 m, 25. IV. 1995 leg. MARTENS & SCHAWALLER (1 ex. SMNS); – Mustang Distr., right bank of Lethe Khola near Lethe, 2400 m, 5.–7. V. 1995 leg. MARTENS & SCHAWALLER (1 ex. SMNS); – Lamjung Distr., Senghe, bridge above Marsyandi, 150 m, 10. IV. 1980 leg. MARTENS & AUSOBSKY (1 ex. SMNS); – Ilam Distr., Mai Pokhari, 2100–2200 m, *Castanopsis* forest remains, 9.–10. IV. 1988 leg. MARTENS & SCHAWALLER (1 ex. SMNS); – Ilam Distr., Mai Pokhari, 2150–2250 m, 23.–25. VIII. 1983 leg. MARTENS & DAAMS (1 ex. SMNS); – Ilam Distr., Mai Pokhari, 2100 m, 31. III.–1. IV. 1980 leg. MARTENS & AUSOBSKY (1 ex. SMNS); – Ilam Distr., between Mai Pokhari and Ilam, 1330 m, 1. IV. 1980 leg. MARTENS & AUSOBSKY (1 ex. SMNS).

Distribution: Cosmopolitan.

Atomaria incertula Johnson 1970

Material: Nepal, Kaski Distr., above Pothana, 2000 m, 27.–29. IV. 1995 leg. MARTENS & SCHAWALLER (30 ex. SMNS, 12 ex. ZMUM); – Kaski Distr., above Dhumpus, 2100 m, *Sarauja* forest, 8.–10. V. 1980 leg. MARTENS & AUSOBSKY (1 ex. SMNS); – Ilam Distr., Mai Pokhari, cultivated land, 2100–2200 m, 25.–27. III. 1980 leg. MARTENS & AUSOBSKY (3 ex. SMNS); – Ilam Distr., Mai Pokhari, 2100–2200 m, *Castanopsis* forest remains, 9.–10. IV. 1988 leg. MARTENS & SCHAWALLER (17 ex. SMNS); – Ilam Distr., Mai Pokhari, 2150–2250 m, 23.–25. VIII. 1983 leg. MARTENS & DAAMS (1 ex. SMNS); – Ilam Distr., road from Ilam to Birtamode, Karphok, 1700 m, cultivated land with bushes, 2. IV. 1980 leg. MARTENS & AUSOBSKY (1 ex. SMNS); – Lalitpur Distr., Phulchoki Mt., 1800–2000 m, 25. IV. 1995 leg. MARTENS & SCHAWALLER (1 ex. SMNS); – Myagdi Distr., Myagdi Khola, Dobang, 2400 m, 25. V. 1995 leg. MARTENS & SCHAWALLER (2 ex. SMNS); – Myagdi Distr., N of Bega Deorali, 2400 m, 16.–17. V. 1995 leg. MARTENS & SCHAWALLER (1 ex. SMNS); – Manang Distr., Marsyandi, 2200 m, above Bagarchap, *Acer-Quercus,* 12.–13. IV. 1980 leg. MARTENS & AUSOBSKY (1 ex. SMNS); – Manang Distr., Marsyandi, 2550 m, Thimang-Bagarchap, *Tsuga-Acer-Rhododendron* forest, 14.–17. IV. 1980 leg. MARTENS & AUSOBSKY (1 ex. SMNS); – Panchthar Distr., Paniporua, 2300 m, mixed broadleaved forest, 16.–20. IV. 1988 leg. MARTENS & SCHAWALLER (2 ex. SMNS); – Panchthar Distr., between Deorali, Puspati and Sheldoti, 2500–2800 m, *Tsuga-Lithocarpus* forest, 28. VIII. 1983 leg. MARTENS & DAAMS (1 ex. SMNS); – Kathmandu Valley, Nagarjung, Jamacok, 1900–2100 m, 18. VIII. 1983 leg. MARTENS & SCHAWALLER (1 ex. SMNS, 1 ex. ZMUM); – Kathmandu Valley, Baneshwar, cultivated land, gardens, 1400 m, 30. III.–2. IV. 1988 leg. MARTENS & SCHAWALLER (1 ex. SMNS); – Kathmandu Valley, Sheopuri Mts., *Quercus semecarpifolia* forest, 2100–2300 m, 25. VI. 1988 leg. MARTENS & SCHAWALLER



Figs 16–23. 16. *Caenoscelis franzi,* aedeagus; – 17. *Atomaria torrida,* aedeagus; – 18. *A. accola* sp. n., dorsal view; – 19. *A. accola* sp. n., aedeagus; – 20. *A. accola* sp. n., spermatheca; – 21. *A. mentita* sp. n., dorsal view; – 22. *A. mentita* sp. n., aedeagus; – 23. *A. plecta,* spermatheca.

(3 ex. SMNS); – Taplejung Distr., Yamputhin, cultivated land, open forest, 1650–1800 m, 26. IV.–1. V. 1988 leg. Martens & Schawaller (2 ex. SMNS, 1 ex. ZMUM); – Dolakha Distr., SW Kalinchok Mt., 3100 m, 19.–23. IV. 1995 leg. Martens & Schawaller (6 ex. SMNS, 3 ex. ZMUM); – Mustang Distr., right bank of Lethe Khola near Lethe, 2400 m, 5.–7. V. 1995 leg. Martens & Schawaller (2 ex. SMNS); – Mustang Distr., Thaksang, 3150 m, *Pinus excelsa-Abies* forest, 26.–29. IV. 1980 leg. Martens & Ausobsky (1 ex. SMNS); – Sankhua Distr., Arun Valley, Chichila, 1900–2000 m, *Quercus* forest, bushes near village, 18.–20. VI. 1988 leg. Martens & Schawaller (5 ex. SMNS, 2 ex. ZMUM); – Bhojpur Distr., Dilkharka, 2100 m, 26. V. 1997 leg. Hauser (1 ex. SMNS); – Solukhumbu Distr., below Pangum, 2500 m, 14.–15. V. 1997 leg. Schawaller (1 ex. SMNS); – Surkhet Distr., N Surkhet, 1600–2000 m, 28. V. 1998 leg. Schawaller (3 ex. SMNS); – Dailekh Distr., Talpokhari S Dailekh, 1800 m, 29. V. 1998

leg. SCHAWALLER (1 ex. SMNS); – Dailekh Distr., N Dailekh, 1600 m, 1.–2. VI. 1998 leg. SCHAWALLER (1 ex. SMNS).

Distribution: India, Pakistan, Nepal.

Remarks: A single specimen (label: road from Ilam to Birtamode, Karphok, 1700 m, 2. IV. 1980) has the left antenna with only 10 segments, because the joints 3 and 4 are fused, this combined antennomere is very long, somewhat longer than first joint.

Atomaria gracilicornis Reitter 1887

Material: Nepal, Dolakha Distr., SW Kalinchok Mt., 3100 m, 19.–23. IV. 1995 leg. MARTENS & SCHAWALLER (3 ex. SMNS, 2 ex. ZMUM); – Mustang Distr., Purano Marpha, 3200 m, 9.–11. V. 1995, leg. MARTENS & SCHAWALLER (1 ex. SMNS).

Distribution: Caucasus, Siberia up to the Far East, India, Nepal.

Atomaria prolixa Erichson 1846

Material: Nepal, Panchthar Distr., Paniporua, 2300 m, mixed broadleaved forest, 16.–20. IV. 1988 leg. MARTENS & SCHAWALLER (1 ex. ZMUM).

Distribution: Palaearctic.

Atomaria torrida Johnson 1970 (Fig. 17)

Material: Nepal, Ilam Distr., Mai Pokhari, 2150–2250 m, 23.–25. VIII. 1983 leg. MARTENS & DAAMS (1 ex. SMNS); – Ilam Distr., Mai Pokhari, 2100–2200 m, *Castanopsis* forest remains, 9.–10. IV. 1988 leg. MARTENS & SCHAWALLER (6 ex. SMNS, 3 ex. ZMUM); – Panchthar Distr., Paniporua, 2300 m, mixed broadleaved forest, 16.–20. IV. 1988, leg. MARTENS & SCHAWALLER (4 ex. SMNS, 2 ex. ZMUM); – Sankhua Sabha Distr., Arun Valley between Mure and Hurure, mixed broadleaved forest, 2050–2150 m, 9.–17. VI. 1988 leg. MARTENS & SCHAWALLER (1 ex. SMNS).

Distribution: India, Nepal.

Remarks: The male of *Atomaria torrida* is illustrated here for the first time (Fig. 17).

Atomaria obliqua Johnson 1970

Material: Nepal, Panchthar Distr., Paniporua, 2300 m, mixed broadleaved forest, 16.–20. IV. 1988 leg. MARTENS & SCHAWALLER (8 ♀♀ SMNS, 3 ♀♀ ZMUM); – Taplejung Distr., above Yamputhin, left bank of Kabeli Khola, bushes, open forest, 1800–2000 m, 27.–29. IV. 1988 leg. MARTENS & SCHAWALLER (1 ♂ ZMUM); – Taplejung Distr., Omje Kharka NW Yamputhin, mature mixed broadleaved forest, 2300–2500 m, 1.–6. V. 1988 leg. MARTENS & SCHAWALLER (1 ♀ SMNS); – Taplejung Distr., Yamputhin, ascent to Pass Deorali, 2100–2600 m, cultivated land, bushes, 16. V. 1988 leg. MARTENS & SCHAWALLER (1 ♀ SMNS); – Ilam Distr., Mai Pokhari, 2100–2200 m, *Castanopsis* forest remains, 9.–10. IV. 1988 leg. MARTENS & SCHAWALLER (3 ♀♀ SMNS, 1 ♂ ZMUM); – Ilam Distr., Mai Pokhari, Gitang Khola Valley, 2500–2600 m, 28.–31. III. 1980 leg. MARTENS & SCHAWALLER (1 ♀ SMNS); – Ilam Distr., Mai Pokhari, cultivated land, 2100–2200 m, 25.–27. III. 1980 leg. MARTENS & AUSOBSKY (1 ♀ SMNS, 1 ♂ ZMUM); – Kaski Distr., above Pothana, 2000 m, 27.–29. IV. 1995 leg. MARTENS & SCHAWALLER (4 ♀♀ SMNS, 1 ♀ ZMUM); – Kathmandu Valley, Nagarjung, Jamacok, 1900–2100 m, secondary forest, 18. VIII. 1983 leg. MARTENS & SCHAWALLER (1 ♀ SMNS); – Kathmandu Valley, Nagarjung, Jamacok, 1400–1600 m, secondary forest, 18. VIII. 1983 leg. MARTENS & SCHAWALLER (1 ♀ SMNS); – Surkhet Distr., N Surkhet, 1600–2000 m, 28. V. 1998 leg. SCHAWALLER (2 ex. SMNS).

Distribution: India, Nepal, Afghanistan.

Remarks: The Indian subcontinent and China lodge a group of several similar species of *Atomaria* with a more or less well-developed dark band on the elytra. *Atomaria fasciata* joins this group which also includes *obliqua, plecta* and *angellata.* The above material from Nepal shows that some differences claimed to exist between *angellata* from China, and *obliqua* appear unreliable. *Atomaria angellata* differs from *obliqua* by the more strongly elongated 1st antennal segment, by the more stout club and by the shape of the apex of the aedeagus. It is noteworthy that usually in the females of *obliqua* from Nepal the structure of the club tends to be more similar to that of *angellata.* As compared to *angellata,* on the average *obliqua* is characterized by the less transverse pronotum (*obliqua:* 1.20–1.35, *angellata:* 1.3–1.4) which is much more densely punctuate (in *obliqua,* the distance between the punctures is much less than the puncture diameter; in *angellata,* the distance between the punctures is about 0.5 of the puncture diameter), and by the somewhat longer elytra (in *oliqua,* 1.3–1.4 times longer than the overall width of both elytra; in *angellata,* this ratio is 1.2–1.3) which are reddish in *obliqua* and straw-yellow in *angellata.* The elytra are somewhat indistinctly infuscate in *khumbuensis* and *frugi.* The same group also includes one more, new species described below.

Atomaria (Anchicera) accola **sp. n.** (Figs 18–20)

Holotype (♂): Nepal, Ilam Distr., Mai Pokhari, 2100–2200 m, *Castanopsis* forest remains, 9.–10. IV. 1988 leg. Martens & Schawaller (SMNS).

Paratypes: Same locality and date as holotype (8 ex. SMNS, 4 ex. ZMUM); – Nepal, Panchthar Distr., Paniporua, 2300 m, mixed broadleaved forest, 16.–20. IV. 1988 leg. Martens & Schawaller (1 ex. SMNS).

Description: Body length 1.4–1.7 mm, body covered with long decumbent silvery pubescence, hairs somewhat longer than claw joint. Head dark brown, pronotum yellow (straw-coloured), elytra lighter, brownish-yellow with an irregular brownish-black transverse band across the disk, this band forming a V-shape astride the suture (Fig. 18), similar to that in *Atomaria obliqua.* Antennae and legs reddish-yellow, club of antenna slightly infuscate. Antennae long and slender, as in Fig. 18; all segments elongate, segment 1 longer than 2, 2nd longer than 3th, latter equal to 7th, 4th equal to 6th or 8th. Segment 5 most elongate except 1st. Club narrow and not well-marked, segment 9 slightly elongate, 10th subquadrate. Pronotum transverse, 1.40–1.55 times as broad as long, broadest across the middle, sides strongly curved and narrowed apically and basally; side borders single, visible from above only in basal half. Pronotal surface shining, not shagreened, densely covered with deep punctures separated from their nearest neighbours by a half-diameter on the disk; hind angles obtuse; pronotal disk convex; base of pronotum with a narrow transverse depression; hind margin finely bordered, not or barely produced caudomedially. Elytra strongly arched, broadest about the middle, 2.25–2.60 times as long as pronotum and 1.15–1.23 times as long as broad combined; surface shining, not shagreened, densely punctured, the punctures in basal half similar in size to those on pronotal disk and separated from their lateral neighbours by approximately one diameter on the average. Wings fully developed. Aedeagus as in Fig. 19. Spermatheca as in Fig. 20.

Remarks: The new species is similar to *Atomaria obliqua* but differs in size, being somewhat longer; antennae longer, all segments elongate, segment 7 longer, almost as long as 3rd; head dark (head of *obliqua* lighter); pronotum more transverse,

punctation more dense, pronotum and elytra more shining, elytra as densely and strongly punctured as pronotum. Aedeagus of *accola* sp. n. with a beak-like prominence, arms of tegmen narrower than in *obliqua.*

Similar to *Atomaria torrida* in antennal structure and appearance, but differs in coloration, segment 5 of antenna longer than 3rd (segment 5 of *torrida* nearly as long as 3rd, 5th segment of *accola* sp. n. somewhat longer than that of *torrida*), punctation of pronotum and elytra more strong and dense, pubescence longer.

The new species differs from *Atomaria plecta* and *angellata* by the antennae which are considerably longer (7th segment very long), the larger punctation of the pronotum and elytra, and by the structure of the aedeagus.

Atomaria (Anchicera) mentita **sp. n.** (Figs 21–22)

Holotype (♂): Nepal, Sankhua Sabha Distr., above Pahakhola, 2600–2800 m, *Quercus semecarpifolia-Rhododendron,* 31. V.–3. VI. 1988 leg. Martens & Schawaller (SMNS).

Paratypes: Same locality and data as holotype (1 ♀ SMNS, 1 ♂ ZMUM); – Nepal, Gorkha Distr., Chuling Khola, 2800 m, *Quercus semecarpifolia* forest, 2.–3. VIII. 1983 leg. Martens & Schawaller (1 ♀ SMNS).

Description: Body length 1.25–1.40 mm, light brown (head sometimes dark brown), covered with short decumbent silvery pubescence, hairs somewhat shorter than claw joint. Eyes normal, head weakly and sparsely punctured, punctures separated from their nearest neighbours by 1.0–1.5 diameters on the disk. Antennae short and stout, as in Fig. 21; segments 1–3 slightly elongate, segment 1 longer than 2nd, latter longer than 3rd, segments 4–8 not elongate, 5th and 7th subquadrate, 4th, 6th and 8th transverse. Club stout, well-marked, segments 9 and 10 strongly transverse. Pronotum transverse, 1.38 times as broad as long, broadest across the middle, sides slightly curved and slightly narrowed basally; side borders single, visible from above only in basal half. Pronotal surface shining, not shagreened, extremely densely covered with deep punctures separated from their nearest neighbours by a half-diameter on the disk; hind angles obtuse; pronotal disk convex; base of the pronotum with a narrow transverse depression; hind margin finely bordered, not or barely produced caudomedially. Elytra short, strongly arched, broadest about the middle, 1.9–2.0 times as long as pronotum and 1.15–1.20 times as long as broad combined; surface shining, not shagreened, densely punctured, the punctures in basal half similar in size to those on pronotal disk and separated from their lateral neighbours by approximately one diameter on the average. Wings absent. Aedeagus as in Fig. 22.

Remarks: This wingless species is similar to the Caucasian *Atomaria circassica* Reitter 1888 and *cephennoides* Reitter 1887 because of the short and stout antennae and the rather short elytra. Differs by the body narrower, strongly punctured and the pubescence short and decumbent. Differs from the wingless Nepalese *Atomaria khumbuensis* by the lighter body, the shorter antennae, the more strongly transverse segments of the club, and the poorly curved sides of the pronotum.

Atomaria klapperichi Johnson 1970

Material: Nepal, Dolakha Distr., SW Kalinchock Mt., 3100 m, 19.–23. IV. 1995 leg. Martens & Schawaller (1 ♂ SMNS); – Ilam Distr., Mai Pokhari, 2100–2200 m, *Castanopsis* forest remains, 9.–10. IV. 1988 leg. Martens & Schawaller (1 ♂ SMNS); – Kaski Distr., above Pothana, 2000 m, 27.–29. IV. 1995 leg. Martens & Schawaller (1 ♂ ZMUM).

Distribution: Nepal, India, Afghanistan. This is the first report in Nepal.

Atomaria pudica Johnson 1970

Material: Nepal, Ilam Distr. road from Ilam to Birtamode, Karphok, 1700 m, cultivated land with bushes, 2. IV. 1980 leg. Martens & Ausobsky (1 ♂ ZMUM); – Ilam Distr., Mai Pokhari, 2100–2200 m, *Castanopsis* forest remains, 9.–10. IV. 1988 leg. Martens & Schawaller (3 ex. SMNS, 1 ex. ZMUM); – Dolakha Distr., SW Kalinchok Mt., 3100 m, 19.–23. IV. 1995 leg. Martens & Schawaller (1 ex. SMNS).

Distribution: Nepal, India. This is the first report in Nepal.

Atomaria khumbuensis Johnson 1971

Material: Nepal, Mustang Distr., Thaksang, 3150 m, *Pinus excelsa-Abies* forest, 26.–29. IV. 1980 leg. Martens & Ausobsky (8 ex. SMNS, 3 ex. ZMUM).

Distribution: Nepal.

Atomaria frugi Lyubarsky 1997

Material: India, Kashmir, Tangmarg, Pir Panjal Mts., 2600 m, 21.–25. V. 1976 leg. Martens & Schawaller (1 ♀ SMNS); – Nepal, Ilam Distr., Mai Pokhari and Ilam, 1330 m, 1. IV. 1980 leg. Martens & Ausobsky (1 ♂ ZMUM).

Distribution: India, Nepal.

Atomaria plecta Lyubarsky 1996 (Fig. 23)

Material: Nepal, Manang Distr., Marsyandi, above Bagarchap, *Acer-Quercus* forest, 2200 m, 12.–13. IV. 1980 leg. Martens & Ausobsky (6 ex. SMNS, 3 ex. ZMUM); – Taplejung Distr., Omje Kharka, NW Yamputhin, mature mixed broadleaved forest, 2300–2500 m, 1.–6. V. 1988 leg. Martens & Schawaller (2 ♀♀ SMNS); – Ilam Distr., Mai Pokhari, 2100–2200 m, *Castanopsis* forest remains, 9.–10. IV. 1988 leg. Martens & Schawaller (1 ♀ SMNS).

Distribution: China (Shaanxi), Nepal.

Remarks: Certain intraspecific variation has been elucidated from the above material. Thus, the 7th antennal segment varies in shape from subquadrate to slightly elongated; the apex of the paramere plate can be rounded (usually) or slightly concave in the middle. The spermatheca is as in Fig. 23. *Atomaria khumbuensis, frugi,* and *plecta* are similar, the differences being shown in the key.

2.1.10. Key to *Atomaria* species from Nepal, based on Johnson (1970) and the above new findings

1 Wings absent 2
– Wings present 3

2 Elytra reddish-brown, with a vaguely darker area on either side of the disk in some specimens. Antennae somewhat stout, segment 5 a little longer than 3rd, 7th transverse, 9th and 10th rather strongly transverse. Sides of pronotum more strongly curved. Paramere plate rounded apically. Length 1.33–1.47 mm ..... ***khumbuensis***
– Lighter body colour. Antennae short and stout, segments 5 and 7 subquadrate, club stout, well-marked, segments 9 and 10 strongly transverse. Sides of ponotum almost subparallel, a little curved. Length 1.25–1.40 mm ..... ***mentita* sp. n.**

3 Body form narrow, elongated, pronotum and elytra with the sides subparallel, very feebly curved at most; antennae close together at base, segment 1 about twice as long as broad. (*Atomaria* s. str.) 4

– Body form proportionately broader and shorter, more curved on sides; antennae usually a little more strongly separated at base, segment 1 about as long as broad in most species: few species have it twice as long as broad *(Anchicera)* 5

4 Base of pronotum with a transverse depression; pronotum somewhat sparsely punctured, surface not shagreened; elytra somewhat coarsely and sparsely punctured, not or feebly shagreened; brownish species, elytra generally with a lighter spot from humeri to disk; antennae rather long, segments 9 and 10 clearly but not strongly transverse; more convex species. Length 1.4–1.8 mm. Apical half of penis with a large Y-shaped sclerite internally ..... ***prolixa***

– Base of pronotum without transverse depression; pronotum generally more finely and densely punctured and shagreened; elytra more finely and densely punctured, strongly shagreened; dark brownish species, elytra often paler but lacking a humeral-discal streak; antennae rather short, segments 9 and 10 about as long as broad; more depressed species. Length 1.6–1.8 mm. Apical half of penis without large Y-shaped internal sclerite .... ***gracilicornis***

5 Antennal segments 9 and 10 strongly transverse, club very broad and well-marked; segment 7 clearly transverse, 6th and 8th more so; body form very short, elytra rather strongly rounded on sides; reddish species 6

– Antennal segments 9 and 10 more weakly transverse, club narrower and not so well-marked; segment 7 slightly elongate, 6th and 8th quadrate to feebly transverse; body form generally not so short, more weakly rounded on sides 7

6 Antennal segment 1 nearly twice as long as broad and about 1.5 times as long as segment 2; elytral pubescence a little outstanding. Apical prolongation of penis broader than long, shorter, sides more narrowed basally ..... ***lewisi***

– Antennal segment 1 about as long as broad, not or but little longer than segment 2; elytral pubescence generally slightly more outstanding. Apical prolongation of penis longer, as long as or slightly longer than broad, sides more subparallel ..... ***incertula***

7 Head, pronotum and elytra monochromously reddish-yellow/brown, darker, at most with the suture somewhat infuscated 8

– Head and pronotum reddish-yellow, elytra a dirty yellow (straw-coloured) with a more or less irregular brownish-black transverse band across the disk, this forming a V-shape astride the suture 10

8 Antennae rather stout, segments 9 and 10 weakly transverse, club narrow and indistinct; pronotum 1.41–1.46 times as broad as long; base of pronotum with a deep and well-defined transverse depression; body more convex, sides of the elytra more strongly curved. Length 1.57–1.65 mm ..... ***torrida***

– Antennae more slender, segments 9 and 10 more strongly transverse, club broader and more distinct; pronotum 1.46–1.64 times as broad as long; base of pronotum with a very narrow and poorly-developed depression; body more depressed, sides of the elytra more weakly curved 9

9 Size larger, 1.54–1.65 mm; antennal segment 1 about as long as broad, subequal in length to segment 2; elytral pubescence rather long and outstanding, hairs 0.05–0.06 mm long; pronotum 1.52–1.64 times as broad as long, breadth 0.74–0.80 mm; sides of elytra very weakly curved ..... ***klapperichi***

– Size smaller, 1.41–1.52 mm; antennal segment 1 a little longer than broad, slightly longer than segment 2; elytral pubescence shorter and more depressed, hairs 0.04–0.05 mm long; pronotum 1.41–1.52 times as broad as long, breadth 0.54–0.59 mm; sides of elytra more obviously curved; elytral suture generally clearly infuscated ..... ***pudica***

10 Segment 7 of antennae strongly elongated, 9th subquadrate or very feebly transverse. Elytral V-shape transverse band distinct 11

– Segment 7 of antennae transverse, 9th joint strongly transverse. Elytral V-shape transverse band indistinct 12

11 Antennae shorter, 1st antennal segment slightly longer than wide and about equal in length to 2nd; 5th antennal segment equal to or slightly longer than 2nd. Pronotum somewhat less

transverse (width/length ratio 1.45–1.60), its sides smoothly rounded, not angular. Size somewhat smaller (1.30–1.45 mm) ..... *obliqua*

– Antennae longer, 1st antennal segment much longer than wide and 2nd, 5th antennal segment longer than 2nd. Pronotum somewhat more transverse (width/length ratio 1.40–1.55), its sides strongly rounded, angular in the middle. Punctation more dense; pronotum and elytra more shining. Size somewhat greater (1.4–1.7 mm) ..... *accola* **sp. n.**

12 Antennae stout, segment 7 subquadrate or a little longer, 9th transverse. Pronotum slightly narrowing towards base, with obtuse posterior angles. Elytra with a darker area on each side of the disk or with wide transverse band. Paramere plate widely rounded or slightly sinuate apically. Length 1.2–1.6 mm ..... *plecta*

– Antennae slender, segment 7 transverse, 9th subquadrate. Pronotum strongly narrowing towards base, with sharp posterior angles. Elytra light reddish-brown, monochromous. Paramere plate clearly sinuate apically. Length 1.3–1.4 mm ..... *frugi.*

2.1.11. *Curelius* Casey 1900

Curelius japonicus (Reitter 1877)

Material: Nepal, Dhading Distr., W Samari Banjyang/Topal Khola, 1000 m, forest remains, 23. VII. 1983 leg. Martens & Schawaller (1 ex. ZMUM); – Ilam Distr., N Mai Pokhari, Tai Gitang Khola, 2500–2600 m, 18.–31. III. 1980 leg. Martens & Ausobsky (1 ex. SMNS); – Ilam Distr., Mai Pokhari, 2100–2200 m, 25.–27. III. 1980 leg. Martens & Ausobsky (1 ex. ZMUM).

Distribution: Europe (Spain), E Asia (from Japan to Java), Africa (from Ethiopia to Zimbabwe), America (from Ohio, USA to Brazil) (Johnson 1989).

2.1.12. *Ephistemus* Stephens 1829

Ephistemus splendens Johnson 1971

Material: Nepal, Sankhua Sabha Distr., Arun valley, Chichila, *Quercus* forest, bushes near village, 18.–20. VI. 1988 leg. Martens & Schawaller (1 ex. SMNS, 1 ex. ZMUM); – Gorkha Distr., Darondi Khola, between Naya Sangu and Gorkha, 1200 m, 14. VIII. 1983 leg. Martens & Schawaller (1 ex. SMNS); – Kathmandu valley, Mt. Sheopuri, *Quercus semecarpifolia* forest, 2100–2300 m, 25. VI. 1988 leg. Martens & Schawaller (1 ex. SMNS).

Distribution: India. First record in Nepal.

2.2. Family Languriidae

2.2.1. *Cryptophilus* Reitter 1874

Cryptophilus integer (Heer 1838)

Material: Nepal, Ilam Distr., Bililate near Ilam, 1330 m, remains of trees around spring, moist soil, 8. IV. 1988 leg. Martens & Schawaller (6 ex. SMNS, 1 ex. ZMUM); – Ilam Distr., between Mai Pokhari and Ilam, 1330 m, 1. IV. 1980 leg. Martens & Ausobsky (1 ex. SMNS, 1 ex. ZMUM); – Chitwan Distr., Chitwan National Park, Sauraha, 150 m, 31. V.–4. VI. 1997 leg. Schawaller (3 ex. SMNS).

Distribution: Palaearctic, India, Nepal, S America. This is the first formal report of the species from Nepal.

2.2.2. *Loberus* Leconte 1861

Loberus sinuaticollis Bruce 1945 (Fig. 7)

Material: Nepal, Taplejung Distr., Kabeli Khola Valley below Limbudin, 950 m, river bank with bushes, 22.–23. IV. 1988 leg. Martens & Schawaller (1 ♂ SMNS).

Distribution: Nepal, Burma. This is the first formal record of the species in Nepal.

Remarks: This species was originally described from two females deriving from Burma (Tenasserim Coast, Ale Mekane, 90 km E Moulmein, 200 m) (Bruce 1945). The aedeagus is thus depicted here for the first time (Fig. 7).

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